- Even without an analog handicap, if a cellular company acquired 10 MHz of PCS spectrum and could use its entire 35 MHz for digital services (which most providers will be unable to do for some time), its effective capacity would only be 20.6 percent -- far below the 35 percent market share the Merger Guidelines consider the threshold for antitrust inspection. And as services such as digital SMR compete more directly with cellular and PCS, cellular providers' effective market shares would drop even further.

Even under a scenario in which five firms are present, and in which a cellular company reaches 40 MHz, its market share would be 20.7 percent -- still well below the market share of two unencumbered 40 MHz PCS companies (with 26.1 percent each) and the Merger Guidelines' 35 percent threshold for concern.[4]

In fact, CTIA's proposal that the Commission award four 20 MHz and four 10 MHz licenses will produce a lower concentration than could be anticipated under the FCC's rules.

HHI Comparison - CTIA Proposal/FCC Model

The CTIA proposal of four 20 MHz licenses and four 10 MHz licenses will produce a less-concentrated market than the FCC's PCS regime. *The HHI index of the CTIA proposal is over 250 points less than the HHI index for the FCC model.*

	CTIA Proposal				FCC PCS Model			
Firms	Bandwidth	Capacity	Share (%)	HHI	Bandwidth	Capacity	Share (%)	HHI
Celco1	25	100	10.9	118	25	100	10.9	118
Celco2	25	100	10.9	118	25	100	10.9	118
PCS-A	20	120	13.0	170	30	180	19.6	383
PCS-B	20	120	13.0	170	30	180	19.6	383
PCS-C	20	120	13.0	170	20	120	13.0	170
PCS-D	20	120	13.0	170	10	60	6.5	43
PCS-E	10	60	6.5	43	10	60	6.5	43
PCS-F	10	60	6.5	43	10	60	6.5	43
PCS-G	10	60	6.5	43	10	60	6.5	43
PCS-H	10	60	6.5	43				
Total	170	920	100	1,087	170	920	100	1,342

Assumption: That digital enjoys a 6-to-1 capacity relationship with analog.

[4]The calculations assumed that each firm served all customers within the geographic market. While a non-cellular PCS licensee with 40 MHz would have 23.5 percent of the capacity within an MTA, a cellular licensee would have to serve over 40 percent of the population of the MTA before its share of the capacity to serve customers reached 23.5 percent.

New Competition For Cellular Is Already Emerging

While most of the foregoing assumed a total mobile services market bandwidth of 170 MHz, developments clearly indicate that more capacity will exist. Technologies continue to converge and more services are becoming directly competitive in the mobile services marketplace.

The CRA study finds that PCS, cellular, and SMR services compete in a single mobile communications product market. For example, many SMR systems -- once non-interconnected, less sophisticated wireless systems -- are now being converted into digital networks, and are beginning to compete directly with analog cellular phone service. NEXTEL's Los Angeles ESMR system is operating, and direct competition between cellular operators and SMR providers is expected to increase as SMR companies consolidate the spectrum licenses they currently hold.

EMERGING COMPETITION FOR CELLULAR PROVIDERS:
EXAMPLES IN THE CONSOLIDATING SMR MARKETPLACE

NEXTEL	Has acquired radio dispatch units of Questar and Advanced MobileComm; holds ownership interest in CenCall Communications. Has acquired mobile radio licenses previously held by Motorola
CenCall	Has acquired mobile radio licenses previously held by Motorola.
Dial Page & Transit Communications	Merger pending. Dial Page has acquired mobile radio licenses previously held by Motorola.

The CRA study further found that, unless the market changes dramatically, any competitive analysis of the wireless communications market should take a very broad view of mobile communications -- a conclusion that suggests that the FCC should reconsider its separate treatment of cellular providers in its spectrum licensing rules.

The CRA study found that:

> **"A combination of the shift to digital technologies, the use of compression techniques, and the use of smaller cells is breaking down barriers that had previously separated markets, so that we appear to be moving rapidly to a single market in which many firms can offer a wide array of mobile services using the spectrum currently assigned to them."**

Study Finds BTAs Are Not Relevant Geographic Markets

The FCC's rules create a two-track licensing scheme with two 30 MHz licenses in each MTA and one 20 MHz license and four 10 MHz licenses in each BTA. Under the FCC's rules, cellular service providers may not obtain PCS licenses for more than 10 MHz in addition to their 25 MHz cellular holdings in areas in which they provide service to more than 10 percent of the

population. In those areas, cellular providers would be ineligible to bid on either of two 30 MHz spectrum blocks the FCC plans to license in Major Trading Areas (MTAs).

But the CRA study raises significant questions about the Commission's prohibitions, and underlying assumptions about the new wireless services marketplace.

According to the Merger Guidelines adopted by the Department of Justice and the Federal Trade Commission, a relevant market would be one in which a single monopolist firm could raise prices and remain profitable -- meaning consumers could not easily substitute other products or buy services from adjoining areas.

The FCC's restrictions on cellular providers appear to assume that a BTA is a relevant market, and that cellular providers are able to discriminate on price in and between BTAs and other service regions. *The CRA study concludes that BTAs are generally not relevant geographic markets.*

CRA reasons that for firms operating in multiple areas -- whether BTAs, or BTAs and cellular markets -- BTAs do not constitute relevant markets for antitrust purposes as long as companies are not able to discriminate on the basis of price among different geographic areas. For example, if a company's cellular service territory does not necessarily coincide with its BTA, a cellular provider that raised prices in the BTA would also have to raise prices for other customers in the rest of its service area, thereby losing sales and profits. If companies were unable to discriminate across such areas, many BTAs would not be relevant geographic markets. Firms operating in a single BTA will also typically find it unprofitable to raise prices in that BTA alone.

CRA also observes that *the calculation of market shares for firms in areas which are not relevant markets has no economic significance -- as they do not provide a measure of market power.* This is of particular significance to the Commission's limitations on the spectrum available to incumbent cellular companies.

What Should the FCC Do?

CTIA proposes that the Commission award four 20 MHz and four 10 MHz licenses, which would mean lower concentration than could be anticipated under the FCC's current rules.

The CTIA also recommends that the FCC abandon plans to restrict cellular providers' ability to obtain licenses, based on the CRA study's significant findings that such restrictions would not only fail to address real competitiveness or market concentration concern, but would in fact restrict cellular providers to a lower market share than that awarded to winners of the biggest licenses.

In reconsidering its rulemaking, the FCC should also take factors other than market concentration into account when considering the competitiveness of the wireless telecommunications market. Because of rapid technological progress, for example, even if the market were highly concentrated, it would be difficult for companies to raise prices anti-

competitively because of the rapidly changing nature of wireless services. Similarly, as technologies converge and once-distinct technologies enter into direct competition with other services, the market will only become more competitive with new providers and new services entering all the time.

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C.

In the Matter of	)	
	)	
Amendment of the Commission's	)	Gen. Docket 90-314
Rules to Establish New Personal	)	
Communications Services	)	

PETITION FOR RECONSIDERATION OF THE CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION

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December 8, 1993

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"A Logical Fallacy -- Trying to Build Competitive Markets By Excluding the Involved, and the Qualified"

SUMMARY

In the face of severe time constraints, the Commission has largely reconciled numerous, often divergent views to adopt a comprehensive order regulating personal communications services ("PCS"). The Commission's efforts will ensure the speedy introduction of PCS into the mobile telecommunications services marketplace to the ultimate benefit of the consumer. CTIA respectfully submits, however, that certain aspects of the Commission's PCS Order should be modified on reconsideration to ensure that the public interest in an efficient mobile telecommunications system is served to the maximum extent feasible.

First, CTIA urges the Commission to modify its spectrum allocation and service area schemes by allocating four 20 MHz blocks and four 10 MHz blocks using a BTA-only service area scheme. Given the uncertainties surrounding the development of PCS and the Commission's inherent inability to outguess the market, a modular approach to PCS licensing will best serve the public interest. Such an approach would begin with small "building blocks" and allow market forces, through the auction process and aftermarket transactions, to aggregate the most economically efficient spectrum blocks and market sizes.

In addition, CTIA's "20-10" allocation scheme provides significant technical advantages over the Commission's 30-20-10 model, while the substitution of 20 MHz blocks for 30 MHz blocks and BTAs for MTAs will facilitate a level playing field for all

PCS firms by permitting such providers access to the same amount of spectrum in the same geographic configurations as their competitors.

Second, the Commission's concern that cellular operators may exercise undue market power, as reflected in its stringent 10% population overlap restriction and 20% cellular attribution limit, is overstated in light of relevant antitrust analysis. CTIA urges the Commission to raise the overlap threshold to 40% and the attribution rule to 30-35% to maximize economic efficiencies and consumer welfare. To protect the interests of passive cellular investors, the Commission should adopt a single majority shareholder exception to its attribution standard.

Finally, CTIA attaches as Appendix A an expert economic analysis by Stanley M. Besen and William B. Burnett of Charles River Associates entitled "An Antitrust Analysis of the Market for Mobile Telecommunications Services" (December 8, 1993) ("Besen and Burnett") which demonstrates that the proper application of antitrust and economic principles to the amount of PCS spectrum that may safely be allocated to current cellular licensees counsels for additional PCS spectrum for cellular operators and for more relaxed cellular eligibility restrictions.

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Amendment of the Commission's	)	Gen. Docket 90-314
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Communications Services	)	

PETITION FOR RECONSIDERATION OF THE CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION

The Cellular Telecommunications Industry Association ("CTIA"), by its attorneys, respectfully submits its petition for reconsideration in the above-captioned proceeding.[1]

I. THE COMMISSION SHOULD RECONSIDER ITS SPECTRUM ALLOCATION AND GEOGRAPHIC SERVICE AREA DECISIONS

A. Overview

Given the uncertainties surrounding the development of PCS and the Commission's inherent inability to outguess the market, CTIA has consistently urged the Commission to adopt a modular approach to PCS licensing that begins with small spectrum blocks and service areas and permits firms to aggregate or disaggregate these "building blocks" to design efficient PCS services.

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[1] See Personal Communications Services, Second Report and Order in Gen. Docket No. 90-314, FCC 93-451 (rel. October 22, 1993) ("PCS Order"). CTIA has participated extensively in all phases of this proceeding.

While the Commission has stressed its desire to rely on marketplace forces to drive efficient PCS offerings,[2] certain aspects of its spectrum allocation and service area decisions undercut this overriding objective. The Commission's decisions to allocate two 30 MHz blocks and to use MTAs are particularly troubling in this regard. The PCS Order provides little support for these large initial assignments other than to point out that certain PCS services may require more capacity and larger geographic areas. The Commission should not at the outset attempt to engineer a market structure to such hypothetical and necessarily imperfect scenarios. Rather, it should start small and rely on the private sector to drive these larger aggregations via the auction process and aftermarket transactions.[3] Toward this end, CTIA urges the Commission to reconsider its PCS spectrum and service area decisions by allocating four 20 MHz

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[2] See, e.g., Personal Communications Services, Notice of Proposed Rulemaking and Tentative Decision in Gen. Docket No. 90-314, 7 FCC Rcd. 5676, 5678, 5687 (1992) ("In licensing mobile services, the Commission has squarely placed its faith in competitive markets.... Our experience suggests that we should adopt a PCS regulatory structure that allows similar flexibility [and] that responds to the needs of the marketplace").

[3] Moreover, because in the context of auctions unjust enrichment will be a problem only where participation is limited to ensure equal opportunity for designated entities, the Commission should limit any anti-trafficking rules it adopts to transfers of PCS licenses awarded in auctions where designated entities have participated. See Spectrum Auction NPRM, PP Docket No. 93-253, FCC 93-455 (rel. October 12, 1993), at ¶ 84.

blocks and four 10 MHz blocks solely on a BTA basis according to the following channelization plan:[4]

	FREQUENCY BLOCK	TOTAL	SERVICE AREA
A	1850-1860/1930-1940 MHz	20 MHz	BTA
B	1860-1870/1940-1950 MHz	20 MHz	BTA
C	1870-1880/1950-1960 MHz	20 MHz	BTA
D	1880-1890/1960-1970 MHz	20 MHz	BTA
E	2130-2135/2180-2185 MHz	10 MHz	BTA
F	2135-2140/2185-2190 MHz	10 MHz	BTA
G	2140-2145/2190-2195 MHz	10 MHz	BTA
H	2145-2150/2195-2200 MHz	10 MHz	BTA

B. The Commission Should Allocate Broadband PCS Spectrum in Four 20 MHz Blocks and Four 10 MHz Blocks

1. 10 MHz is Sufficient to Provide Viable PCS Services

The Commission's decision to allocate four 10 MHz PCS blocks is based on its recognition that 10 MHz constitutes a minimum efficient scale for PCS operation:

> We conclude that a 10 MHz allocation can support viable and competitive PCS services through the use of digital methods such as CDMA and TDMA and microcellular technology.[5]

The record amply supports the sufficiency of a 10 MHz allocation, as well. As the PCS Order correctly points out, PCS providers will not have the same obligations to support analog subscribers as cellular carriers[6] and will employ digital modulation techniques that will substantially increase the effective capacity of PCS allocations. For example, Qualcomm Incorporated

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[4] Blocks D and E of this frequency plan would be set aside for designated entities.

[5] PCS Order at ¶ 57 (noting that Canada has allocated only 4 MHz for PCS services at 900 MHz).

[6] Id. at ¶ 31. See also Besen and Burnett at 36.

claims that by using its CDMA technology over 1.25 MHz, it can provide capacity equivalent to that of an analog cellular system using 25 MHz.[7] Similarly, Nextel, with less than 10 MHz of spectrum in each of its major markets, uses digital coding and TDMA transmission techniques to provide up to 50 times the capacity of existing SMR systems and six times the capacity of a single analog cellular voice channel.[8]

Other commenters also support smaller frequency blocks in the 5-15 MHz range. NTIA, for example, argues that blocks of 10-15 MHz: (1) would allow more licenses per service area, permitting a large number of PCS providers to compete in the marketplace; (2) could be less expensive to obtain through competitive bidding, making it easier for some parties, such as small, innovative enterprises and rural telephone companies, to participate in the initial bidding; and (3) would account for the fact that technology is becoming more spectrum efficient.[9]

In an era in which digital technologies offer increased spectral capacity and in which a firm like Nextel has

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[7] See Gen. Docket No. 90-314, Qualcomm Request for Pioneer's Preference, Appendix A at 6 (May 4, 1992).

[8] See Nextel's Petition for Reconsideration filed in the instant proceeding (November 18, 1993) ("Nextel Petition") at 7.

[9] See Letter to the Honorable James H. Quello, Acting Chairman, Federal Communications Commission from Larry Irving, Assistant Secretary Department of Commerce, dated September 14, 1993 ("NTIA Letter"). See also Comments of Pass Word at 2-3 (using CDMA technology, allocations of 5 MHz or less are sufficient for PCS); Comments of PDM/PCS at 7; Comments of City Utilities of Springfield, Missouri at 10; Comments of Motorola at 9; Comments of PowerSpectrum, Inc. at 3-4.

demonstrated that diverse, innovative, and spectrum-efficient wireless services can be offered within 10 MHz, the Commission's decision to allocate 30 MHz blocks should be revised. CTIA agrees with Nextel, however, that to compensate for potential incumbent interference in the 2 MHz band, four 20 MHz blocks should be allocated in addition to the four 10 MHz blocks. As discussed below, this bifurcated "20-10" scheme will allay interference concerns while avoiding the technical difficulties and inequities of the Commission's 30-20-10 approach.

2. CTIA's 20-10 Allocation Scheme Provides Significant Technical Advantages Over the Commission's 30-20-10 Scheme

CTIA's 20-10 scheme affords significant technical advantages over the Commission's 30-20-10 scheme. First, 30 MHz blocks are inconsistent with the channelization of the 2 GHz band. Since microwave users below 2 GHz principally have 10 MHz allocations in each direction,[10] under a 30 MHz allocation scheme (15 MHz in each direction), coordination would be more difficult due to two adjacent PCS blocks overlapping a single OFS channel or a single PCS block overlapping two adjacent OFS channels.

By contrast, CTIA's recommended channelization scheme, see p. 3, supra, not only comports with the prevalent 80 MHz separation in the 1850-1990 MHz band and the prevalent 50 MHz separation in the 2100-2200 MHz band, but also simplifies negotiations with microwave incumbents. The recent working paper on the cost structure of PCS, issued through the Office of Plans

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[10] See PCS Order at ¶ 58.

and Policy, recognized the technical superiority of 20 MHz allocations in this regard:

> One side effect of having the 2 GHz band populated with the incumbent microwave users is that spectrum allocation sizes that are multiples of 20 are attractive. The existing channelization plan for microwave users in this region generally allocates spectrum in 10 MHz channels. Consequently, relocation negotiations are likely to be more difficult when the spectrum allocation of the microwave user overlaps two separate PCS licenses because one licensee could attempt to gain a "free ride" at the expense of another trying to move the microwave incumbent. A PCS license size that is a multiple of 20 MHz should eliminate most cases in which this situation could occur. A 30 MHz spectrum allocation size is more likely to encounter this situation to some extent since the allocation is separated into two 15 MHz allocations, one for each direction of transmission, which will have to overlap into more than one 10 MHz microwave channel.[11]

It is no wonder that given the technical superiority of a 20 MHz allocation in the bands below 2 GHz that the American Petroleum Institute, a national trade association representing over 200 2 GHz incumbents, is a principal supporter of 20 MHz blocks.[12]

Equally important, the Commission's 30-20-10 scheme will force 30 MHz and 20 MHz licensees in the lower band to aggregate with the 10 MHz frequency blocks of the higher band if their systems require more than 30 or 20 MHz, thereby requiring "complex and therefore more expensive equipment capable of

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[11] David P. Reed, Putting it all Together: The Cost Structure for PCS, Office of Plans and Policy Working Paper No. 28, November 1992, at 20.

[12] See Comments of American Petroleum Institute at 5.

operating in both bands."[13] CTIA's 20-10 allocation scheme will create more opportunities to aggregate up to 40 MHz in the same band, thereby permitting those who so desire to avoid the complexity of dual-mode phones.

3. Starting with Smaller 10 and 20 MHz Blocks Will Allow Market Forces, Rather than Governmental Fiat, to Drive Efficient Spectrum Aggregations

The Commission provides no support for its allocation of 30 MHz blocks other than its "belie[f] that some types of PCS operations will require more than 10 MHz to provide services that require wider bandwidths."[14] Not only is the Commission's premise unsubstantiated by the record,[15] but its conclusion is far from obvious. As Commissioner Barrett correctly observes:

> [I]f 10 MHz BTA slivers are adequate, I question why 20 MHz is not sufficient in the lower band MTAs, since PCS proponents could always aggregate more spectrum.... Thus, I wonder whether a 10 MHz allocation undermines the technical rationale for 30 MHz allocations in the lower band. It would appear that as a technical matter, three 20 MHz blocks would be sufficient.[16]

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[13] PCS Order at ¶ 62; Dissenting Statement of Commissioner Barrett at 8, 16, n. 11 ("Thus, it appears that today's decision complicates the equipment picture for any 40 MHz visions, both in terms of unequal market sizes (i.e., MTA/BTA) and in terms of differing technical characteristics in the allocations").

[14] Id. at ¶ 58.

[15] As Nextel correctly points out, the record in this proceeding does not identify any PCS service requiring a 30 MHz allocation, see Nextel Petition at i, and those supporters of 30 MHz both ignore the benefits of spectrum-conserving technologies and limit their observations to select markets that are not indicative of spectrum use throughout the country. Id. at n. 4. See also Reply Comments of CTIA at 9.

[16] Dissenting Statement of Commissioner Barrett at 9.

In addition, it could be more difficult and costly to build down from oversized 30 MHz spectrum blocks. If, for example, the Commission were to assign 30 MHz blocks and it turns out that PCS can be done most efficiently in 20 MHz, then a scarce and valuable resource will be underutilized.

Given the fundamental uncertainties inherent in PCS, the Commission should refrain from arbitrarily constraining its development by initially assigning oversized 30 MHz PCS blocks. Instead, the Commission should embrace a modular approach and assign small yet sufficient 10 and 20 MHz blocks, thereafter allowing marketplace forces, through the auction process and aftermarket transactions, to determine optimal spectrum configurations. Concerns that under such an initial licensing scheme PCS licensees will somehow be "stuck" with too little spectrum are rooted in old notions of comparative hearings and lotteries. The Commission must "keep in mind that PCS will be assigned through the competitive bidding process"[17] in which PCS firms will have a greater degree of control over aggregating the desired amount of spectrum. In short, the Commission should let "the marketplace determine the optimal size of spectrum blocks and service areas for the many different visions of PCS we hope to see."[18]

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[17] NTIA Letter at 5.

[18] Separate Statement of Commissioner Duggan at 1. See also Letter to the Honorable James H. Quello, Acting Chairman, Federal Communications Commission, from the Honorable John D. Dingell, Chairman, Committee on Energy and Commerce, dated

(continued...)

C. The Commission Should License All Broadband PCS Licenses Using BTA Service Areas

Just as the initial allocation of 30 MHz blocks will encourage inefficient spectrum use, initial licensing of MTAs will foster inefficient geographic aggregations. There is simply no sound reason or record support for the Commission initially to create such large geographic areas. This is particularly true given the Commission's findings that BTAs: (1) are "representative of likely PCS markets in which local communications will take place;"[19] (2) will allow for efficient roaming and interoperability with other PCS systems;[20] and (3) will promote broader participation and technical and innovative diversity which "may be an important benefit during the initial period of PCS implementation when the market and services are still being defined."[21]

The Commission's decision to license MTAs is premised on little more than an erroneous presumption that PCS will be a cellular clone and that larger PCS service areas are warranted to avoid repeating the history of consolidation that took place with cellular MSAs/RSAs.[22] This presumption belies the Commission's

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[18](...continued)
September 21, 1993, at 2 ("[T]he Commission must take itself out of the process of picking winners and losers, by structuring a competitive bidding process that permits market forces to work").

[19] PCS Order at ¶ 75.

[20] Id. at ¶ 77.

[21] Id. at ¶ 75.

[22] See id. at ¶ 74.

own broad definition of PCS[23] and is at odds with the record in this proceeding. Indeed, if the Commission equates PCS with cellular for purposes of defining PCS service areas, notwithstanding its articulated vision of PCS, the Commission may run afoul of its reasoned decisionmaking obligations.[24]

Even if the Commission's "expectation" that MTAs may provide scale and scope economies and may facilitate roaming and interoperability[25] is ultimately proven correct, market forces should make this determination. As NTIA has correctly observed:

> If PCS turns out to be a service most efficiently offered on a regional or national basis, providers may obtain large areas by bidding on multiple areas or aggregating areas in post-bidding transactions. The 47 Rand McNally Major Trading Areas (MTAs), of which there are three fewer than the total number of states, appear to be too large to meet these objectives.[26]

Indeed, the Commission itself expressly acknowledges that the competitive bidding process will itself facilitate larger geographic aggregations.[27] Conversely, initial PCS geographic assignments that are "too large," will skew market outcomes and produce inefficient PCS configurations. Moreover, disassembling oversized service areas will be more difficult and costly to

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[23] Id. at ¶ 24.

[24] See Reply Comments of CTIA at 25-26; Comments of BellSouth at 63. See also Nextel Petition at 14-15 ("Unless PCS is viewed as distinct from cellular, the full development of its capabilities will be frustrated").

[25] PCS Order at ¶ 75.

[26] NTIA Letter at 4.

[27] PCS Order at ¶ 78.

accomplish and will necessarily increase the number of corrective post-auction transactions.[28]

D. Substituting 20 MHz Blocks for 30 MHz Blocks and BTAs for MTAs Will Level the Playing Field for All PCS Providers

By substituting 20 MHz blocks for 30 MHz blocks and BTAs for MTAs, CTIA's revised allocation/service area scheme will level the playing field for all firms, thereby enabling competition on a fully equivalent basis.[29] As such, this modified scheme will more effectively carry out Congress' directive to the Commission to prescribe area designations and bandwidth assignments that "promote economic opportunity for a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by minority groups and women."[30]

II. THE COMMISSION SHOULD RELAX RESTRICTIONS UPON CELLULAR PARTICIPATION IN PCS

A. Sound Principles of Antitrust and Economic Theory Dictate Against Imposing Stringent Eligibility Limits upon Cellular Carriers

The Commission has adopted a series of eligibility restrictions on cellular participation in PCS which, as

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[28] See Nextel Petition at 13-14.

[29] See Report of the Small Business Advisory Committee to the FCC regarding Gen. Docket No. 90-314, at 9-10 (Sept. 15, 1993) (Commission should adopt an all-BTA scheme under which "the amount of spectrum for the small business allocation [is] consistent with the predominant spectrum block allocations").

[30] 47 U.S.C. § 309(j)(4)(C)(ii). In addition, CTIA's proposed PCS frequency plan would result in lower market concentration than the distribution of bandwidth contemplated by the PCS Order. See Besen and Burnett at 45-46.

demonstrated below, should be relaxed. Specifically, the Commission's rules require that where PCS and cellular service areas overlap, that is "10 or more percent of the population of a PCS service area (MTA or BTA) is within the cellular system's existing coverage area (i.e., the CGSA)," cellular operators are restricted to a "10 MHz" BTA license.[31] Additionally, ownership interests of 20% or more in a cellular licensee are attributable and thus trigger application of the 10% overlap rule.[32]

The Commission's rationale for placing such limitations on current cellular licensees arises from concerns about the "potential for unfair competition" and the exercise of "undue market power" by a cellular licensee should it acquire additional

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[31] PCS Order at ¶¶ 105-106. In this situation, the 25 MHz currently awarded to a cellular operator is counted toward the overall 40 MHz limit imposed on PCS ownership within a geographic area. See id. at ¶¶ 60-61, n. 60, and ¶ 106. While CTIA raises no objections to the Order's 40 MHz limit, it asks that the Commission clarify that when the 25 MHz of cellular spectrum is included in the 40 MHz limit, a cellular operator should be entitled to acquire up to the full 40 MHz limit. Thus, cellular operators should be entitled to acquire the additional 5 MHz of spectrum (in addition to bidding for a 10 MHz block) either through bidding and subsequent divestiture or in the aftermarket. This additional spectrum will not raise anticompetitive concerns. See Besen and Burnett at 56-57 (permitting cellular firms to hold 40 MHz is within acceptable concentration levels under the Department of Justice and Federal Trade Commission Horizontal Merger Guidelines (Apr. 2, 1992) ("Merger Guidelines").

Moreover, because enhanced specialized mobile radio ("SMR") services (as well as "functionally equivalent" SMR services) provide service substitutable for cellular service and fit within the commercial mobile services category, see CTIA Comments in Gen. Docket No. 93-252 at 18-23, (Nov. 8, 1993); CTIA Reply Comments at 15-17 (Nov. 23, 1993), such SMR spectrum should be included within the 40 MHz limit to the same extent that cellular spectrum is included.

[32] See PCS Order at ¶ 107.

spectrum.[33] The Commission recognizes, however, that "participation by cellular operators in PCS offers the potential to promote the early development of PCS by taking advantage of cellular providers' expertise, economies of scope between PCS and cellular service, and existing infrastructure."[34]

The tension arising between these objectives can be resolved by applying principles developed in the antitrust area. Specifically, antitrust methodology concerning the relevant geographic market demonstrates that concerns over market concentration and possible collusion among PCS providers do not warrant the current cellular restrictions. Moreover, antitrust law establishes that a firm's market share should be of concern to the Commission only when it reaches a level of 30-35% or more. Finally, antitrust law illustrates that the risks to innovation from erring on the side of restrictive eligibility rules are greater than the risks of increased concentration incurred by erring in the other direction.

The attached analysis by Besen and Burnett indicates that the eligibility requirements sought to be imposed by the Commission under its current geographic allocation plan are unduly restrictive. Under this plan, many acquisitions of PCS licenses by cellular operators are unlikely to increase concentration to levels traditionally suspect under the antitrust

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[33] Id. at ¶¶ 105, 61.

[34] Id. at ¶ 104.

laws. Moreover, even if they do so, other factors militate against collusion and the exercise of market power.

While the Besen-Burnett analysis is not based on CTIA's proposed BTA-only allocation plan, certain portions of the analysis are applicable to the plan. In particular, the analysis shows how to take into account the overlap between cellular and PCS service areas in determining market shares. Thus it can be used to identify instances in which the acquisition by cellular licensees of PCS licenses under the CTIA plan do not unduly increase market concentration.

1. The Geographic Market Analysis for Measuring Possible Anticompetitive Effects of Increased Concentration Supports a Relaxed Overlap Rule

Using the methodology found in the Merger Guidelines, Besen and Burnett demonstrate that the appropriate geographic market for measuring possible anticompetitive effects from increased concentration is likely to be substantially greater than an individual BTA.[35] This conclusion follows in part from the requirements of § 202(a) of the Communications Act.[36] The Commission has uniformly held that discrimination on a geographic basis is within the proscription of § 202(a) and hence illegal under the Act.[37]

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[35] Besen and Burnett at 24-28.

[36] Id. at 14.

[37] See In re AT&T Communications, Tariff F.C.C. No. 15, Competitive Pricing Plan 23, 7 FCC Rcd. 4636 (1992); In re AT&T Communications, Revisions to Tariff F.C.C. No. 12, 4 FCC Rcd. 4932, 4938 (1989); Department of Public Services of Washington v. (continued...)

In examining the Commission's 10% overlap restriction (which limits cellular companies from holding a 30 MHz MTA license in areas of overlap), Besen and Burnett note that so long as a firm cannot price discriminate among customers in different BTAs, then cellular carriers with a 55 MHz allocation[38] in a limited geographic area cannot "exercise market power because such a firm, either acting alone or in concert with other firms, would not be able to profitably raise prices."[39] The geographic market analysis presented by Besen and Burnett demonstrates that overall concentration in the relevant geographic market, and hence the risk of collusion, is likely to be lower than is first apparent. Thus, the 10% overlap rule, which is designed to prevent the exercise of undue market power, should be relaxed.

2. Antitrust Analysis Supports a Relaxed Cellular Attribution Standard

Principles of antitrust law also support a relaxed cellular attribution standard. The Merger Guidelines establish a 35% market share as the threshold for unilateral exercise of market

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[37](...continued)
Pacific Telephone & Telegraph co., 8 FCC 342 (1941). Courts have upheld the Commission's interpretation that § 202(a) prohibits all forms of price discrimination not based on cost-of-service differences. See, e.g., Western Union International v. F.C.C., 568 F.2d 1012 (2d Cir. 1977), cert. denied, 436 U.S. 944 (1978).

[38] The 55 MHz figure includes 25 MHz of cellular spectrum and a 30 MHz MTA license.

[39] Besen and Burnett at 58. This result would obtain as well under CTIA's revised PCS spectrum division. See id. at 45-46.

power.[40] This percentage is consistent both with the Supreme Court's determination in Jefferson Parish Hospital v. Hyde,[41] that a firm with a market share of less than 30% cannot possess market power, and with the Commission's 30% cable horizontal ownership limitation.[42] Because the Commission's 40 MHz limit would result in a market share of only 23.5%,[43] even a substantially higher percentage of ownership than is permitted by the Commission is unlikely to raise serious anticompetitive concerns.

In addition to the unilateral exercise of market power, there exists, as the Guidelines discuss at length, the danger of increased prices or decreased output through express or tacit collusion among competitors which may be enhanced by increased market concentration. However, an extensive analysis by Besen and Burnett[44] demonstrates that the threshold concentration levels posited by the Merger Guidelines as likely to lead to an

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[40] See Merger Guidelines § 2.211.

[41] 466 U.S. 2, 46 (1984) (plurality opinion).

[42] See 47 C.F.R. § 76.503 (establishing a horizontal ownership limit of 30% of homes passed nationwide, while permitting a 35% limit provided that 5% of homes passed are minority controlled).

[43] The 23.5% figure is derived from the "worst case" scenario where the available mobile telecommunications spectrum is limited to 170 MHz (40/170 = 23.5). The 170 MHz includes 120 MHz allocated to broadband PCS and 50 MHz allocated to cellular services. Such a figure, though, is conservative considering that it does not take into account the additional 19 MHz of spectrum allocated to SMR. See Besen and Burnett at 44-45.

[44] See Besen and Burnett at 35-49.